Rule CIC130: Storage dumps occurred for a production CICS region

Finding: CPExpert has detected that storage dumps were taken for a production CICS region.

Impact: This finding should normally have a LOW IMPACT on the performance of the CICS region, since the dumps should occur infrequently. However, the performance impact could be significant if the number of dumps is large. In a heavily-loaded system, the performance impact may be large even if the number of dumps is relatively small. This is because CICS tasks get backlogged and CICS could become stressed recovering from the backlog.

Logic flow: This is a basic finding, based upon an analysis of the daily CICS statistics.

Discussion: Storage dumps are produced for a variety of reasons (e.g., program checks and storage violations). The system is severely loaded while writing a dump to the CICS dump data set. In the case of formatted dumps, nothing else is processed by CICS until the dump is written to the CICS dump data set. Depending upon the size of the dump, the dump could take over one second. During this time, all other activities are delayed. All storage dumps in a production CICS region should be thoroughly investigated and their causes eliminated.

CPExpert produces Rule CIC130 if the number of storage dumps is greater than the STORDUMP guidance variable in USOURCE.CICGUIDE.

Suggestion: CPExpert suggests that you investigate and correct the causes of the storage dumps.

- If the CICS transactions causing the storage dumps are in production mode, additional quality control may be indicated.
- If application developers are testing new CICS applications in the region, perhaps a CICS test region should be established for the test work.

In any event, storage dumps are disruptive to production CICS regions. The more heavily-loaded the CICS region, the more disruptive the effect of the storage dumps. Significant effort should be expended to find and correct the causes of the storage dumps.

Reference: *CICS/OS/VS Version 1.7 Performance* Guide: page 56.

CICS/MVS Version 2.1.2 Performance Guide: pages 238 and 376.

CICS/ESA Version 3.1.1 Performance Guide: page 63.

CICS/ESA Version 3.2.1 Performance Guide: pages 48 and 283.

CICS/ESA Version 3.3.1 Performance Guide: pages 50 and 302.

CICS/ESA Version 4.1.1 Performance Guide: Section 3.2.6 and Appendix A.1.6.

CICS/TS Release 1.1 Performance Guide: Section 3.2.6 and Appendix 1.1.6

CICS/TS Release 1.2 Performance Guide: Section 3.2.6 and Appendix 1.1.6

CICS/TS Release 1.3 Performance Guide: Section 3.2.6 and Appendix 1.1.6.

CICS/TS for z/OS Release 2.1 *Performance Guide*: Chapter 11 (Recovery from storage violation) and Appendix A (Table 111).

CICS/TS for z/OS Release 2.2 *Performance Guide*: Section 3.2.4 (Detecting storage violation) and APPENDIX1.1.25.

